

## LED Traffic Lights

Here's something you can do for amusement the next time you are stuck at a seemingly endless red light. Look carefully and see if you find many small glowing red dots rather than the usual even red color. If you see the dots, you are looking at a light-emitting diode (LED), stoplight. The City has changed out most of the red, and many of the green, stoplights in town to LED's.

An LED is a semiconductor that turns electricity directly into light without a filament or fluorescent tube. LED's are not yet very efficient in the classic sense (light output per watt of energy), but they are very efficient at producing very bright "points" of light. In addition to traffic signals, we are using them in exit signs all over the City, and soon, the taxiway lights at the Airport will be LED. You can also see LED's in the brake lights of trucks and busses. In addition to providing an efficient "indicator" light, LED's require almost no maintenance and are intended to last about 20 years before burning out. For hard to reach areas or critical applications, like the airport, they can greatly reduce the cost of maintenance.

LED's are not yet suitable for general area lighting, but a great deal of research is now underway to expand their usefulness. You can expect to see more and more of them coming into general use. Who would have thought that you would be glimpsing the future as you were waiting in traffic?